

WHAT IS CLAIMED IS:

1. A tank liquid level or volume gauge for use with a tank defining a volume containing volatile materials that are stored as a liquid under pressure and released from the tank for use in gaseous form, comprising:

5 a float member extending into the tank, the float member defining a float chamber configured to allow the float member to float in the liquid;

a float magnet joined to an upper portion of the float member;

an elongated shaft positioned at an upper end of the tank, the upper portion of the float member being telescopically engaged with the elongated shaft;

10 a fluid impermeable, non-magnetic wall disposed between the upper portion of the float member and the elongated shaft; and

a liquid level indication magnet positioned to couple with the float magnet across the fluid impermeable wall for axial positioning of the shaft in response to axial positioning of the float member;

15 the shaft member being configured to indicate the tank liquid level by its axial positioning.

2. The tank liquid level or volume gauge of claim 1 and further comprising a tank upon which said gauge is mounted.

20 3. The tank liquid level or volume gauge of claim 1 or claim 2, further including a coupling converting generally axial movement of the float member into lateral or rotational movement.

25 4. The tank liquid level or volume gauge of claim 1 or claim 2, further including a shut-off device signaling to a delivery pump to shut off flow when the tank contains a predetermined volume of fluid.

30 5. The tank liquid level or volume gauge of claim 4 wherein, when the liquid in the tank reaches a predetermined level, a shutoff signal is created by the float member actuating an inlet closure valve to increase inlet flow resistance.

6. The tank liquid level or volume gauge of claim 1 or claim 2 further comprising a cover for the tank, the cover having an indicator region through which an upper portion of the shaft is visible to a user of the tank.

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7. The tank liquid level or volume gauge of claim 6 wherein the upper portion of the shaft carries an indicator scale configured to provide a visual indication of the liquid level.

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8. The tank liquid level or volume gauge of claim 7 wherein the indicator scale comprises a member having indicator panels of different colors, the colors being arranged to be displayed sequentially through the indicator region of the cover.

9. The tank liquid level or volume gauge of claim 6 wherein the indicator region comprises a window.

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10. The tank liquid level or volume gauge of claim 6 wherein the window is lens or dome-shaped.

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11. The tank liquid level or volume gauge of claim 8 wherein the indicator panels are green, yellow and red, to indicate, respectively, that the tank contains an adequate level of liquid, that the level of liquid has reached a low level, and that the tank is almost empty.

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12. The tank liquid level or volume gauge of claim 11 wherein the gauge is configured so that the green indicator panel indicates that there is sufficient liquid for at least 6 hours of operation, the yellow indicator panel indicates that there is sufficient liquid for about 2-6 hours of operation, and the red indicator panel indicates that there is sufficient liquid for 2 hours of operation or less.

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13. The tank liquid level or volume gauge of claim 1 or claim 2 wherein the volatile material is propane.

14. The tank liquid level or volume gauge of claim 1 or claim 2 wherein the float member comprises an elongated tube that extends sufficiently far into the tank so as to float when the liquid has reached a relatively low level.